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TO: Each Supervisor

FROM: Bruce A. Chernof, M.D.
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Jonathan E. Fielding, M.D., M.P.H.
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SUBJECT: **MEDIA REPORTS REGARDING HEPATITIS A**

Last week, Channel 4 investigative reporter Joel Grover interviewed staff in Acute Communicable Disease Control (ACDC) regarding the increase in hepatitis A cases in the County since August 2005. Previously, KNBC had made a public records request and received documents concerning various aspects of the ACDC epidemiological investigation and Environmental Health's inspections. We are anticipating this news report to be aired on Thursday, February 2, 2006, which will be critical of some aspects of our handling of this investigation. Fox News (Channel 11) previously requested substantially the same documents and aired a segment. In addition, ACDC staff were interviewed by a KCBS Channel 2 reporter on January 31, and we expect it to air in the next day or two.

We have provided you with reports dated November 14, 2005 and January 23, 2006. This memo provides additional information concerning our investigation of these cases.

Starting in August, 2005, there was an increase in the number of acute hepatitis A cases occurring throughout the County, including 5 distinct outbreaks. During this time, Public Health consulted with the California Department of Health Services (CHDS) and the Centers for Disease Control (CDC) and worked with them in efforts to determine the sources of the outbreaks and to develop control measures.

Background on Hepatitis A Surveillance

Surveillance for hepatitis A is challenging. According to the CDC/Council of State and Territorial Epidemiologists (CSTE) criteria for public health surveillance, a case of acute hepatitis A must meet three criteria:

1) an onset date with symptoms compatible with acute hepatitis A ,
2) elevated liver function tests or jaundice, and
3) a positive laboratory test for HAV IgM (hepatitis A acute antibodies).

Prior to 2005, hepatitis A cases were counted even if the only information received about the patient was a positive IgM test. Since January, 2005, we have been following the CDC/CSTE definition of acute hepatitis A. One of the reasons for using the more strict definition is to decrease the percentage of false positives cases based on the antibody test alone. Use of the new criteria increased the burden of investigation and the time it takes to determine if the laboratory report represents a true case of acute hepatitis A. Although laboratories across the County report positive HAV IgM tests to Public Health, the information about onset date and symptoms, and the information about liver function tests, must be separately obtained by medical chart review and physician and patient interview.

Healthcare providers and laboratories are required to report acute hepatitis A within one working day of diagnosis, although this is not usually observed. In turn, Public Health attempts to make contact with these patients within one working day in order to assess the need to provide post-exposure prophylaxis (Immune Globulin or "IG") to close contacts of the case. Determination of exposure risk factors for hepatitis A is complicated by the lengthy incubation period for this disease (range 2-7 weeks, average 3-4 weeks)) and the multiple sources of acquisition (from food, household contacts, travel, sexual partners, or drug sharing). In most cases, a single source is not identified.

During the investigation this fall, it was discovered that one of Public Health's largest reporting sources (~25% of reported hepatitis A cases) had inadvertently ceased electronic reporting of HAV IgM tests since October 2004. In November 2005, this source reported more than 300 positive tests going back a full year which had to be investigated (many were false positives). This meant that a full report of cases occurring in 2005 was not available until November.

Hepatitis A in the Homeless

On October 3, 2005, the Acute Communicable Disease Control Program (ACDC) was notified of two people who lived and worked at a downtown communal home that ran a soup kitchen, and who had recent onset of hepatitis like symptoms (9/27 and 10/1). On October 5, the blood tests were positive for HAV IgM. By this time, staff from ACDC had already spoken with an administrator at the home and with one of the cases. The two cases prepared food for the other residents of the home and one of the cases also prepared food for the soup kitchen. After consultation with our counterparts at the CDHS, we offered IG to the other residents because of their close contact with the two cases and their status as food handlers. Based on our assessment of negligible risk to patrons of the soup kitchen, we made no public announcement regarding the cases. Our assessment of risk was consistent with the Advisory Council of Immunization Practices (ACIP) as published by the CDC. The ACIP recommends that if a food handler is diagnosed with hepatitis A, IG should be administered to other food handlers at the same establishment. According to the ACIP, because common-source transmission to patrons is unlikely, IG

administration to patrons is usually not recommended but can be considered if 1) during the time when the food handler was likely to be infectious, the food handler both directly handled uncooked foods or foods after cooking and had diarrhea or poor hygienic practices; and 2) patrons can be identified and treated within 2 weeks after the exposure. Based on our interview with the two cases, this situation did not meet the criteria for public notification and offering of IG. Your Board was notified of the situation on October 6.

During this time period, there were increasing anecdotal reports of hepatitis A occurring in the homeless and in the Central Health District which includes Skid Row. In response to the confirmed and anecdotal cases, Public Health took the following measures:

1) The DHS Homeless Services coordinator sent an electronic notification to skid row healthcare providers about the identification and diagnosis of hepatitis A (October 17).
2) We made Public Health Laboratory (PHL) available to skid row clinics to test for hepatitis A.
3) The DHS Homeless Services coordinator sent an electronic notification to administrators of homeless shelters about hepatitis A, its identification, and how to prevent transmission (assuring clean bathrooms and removing ill personnel from food preparation) (October 17).
4) We notified public health administrators countywide about the increase in hepatitis A and how to assist homeless shelters in preventing the spread of hepatitis A (October 17).
5) We developed an additional surveillance form, specifically asking about exposures to homeless shelters and soup kitchens, for district personnel to use when investigating all new cases of suspected hepatitis A (October 17).
6) We did outreach to the affected health districts to encourage timely reporting and through case review (October-December).
7) We notified the CDHS about the increase in acute hepatitis A cases (October 17).
8) ACDC worked with LAC-USC to capture data from any cases occurring in the homeless who had been diagnosed or treated there.
9) ACDC developed new protocols for further follow-up and investigation of all cases occurring in the homeless.
10) We provided extra, post-Katrina hepatitis A vaccine to health districts to distribute to high risk clients, including the homeless.
11) We inspected all soup kitchens on Skid Row for food workers with recent illness compatible with hepatitis A, food preparation practices, and sources of food (especially raw produce) (first week of November).

As of January 30, 2006, there have been 37 confirmed cases of acute hepatitis A occurring in the homeless between September-December 2005. The majority of the cases had onset in September and October (24). At this time, no single source has been identified for the cases among the homeless. Since hepatitis A is a fecal-oral disease and can easily spread through close, household contact, it is very hard to control in shelter-like situations where many people may share the same toilets.

Outbreaks

Movie Set: On November 7, 2005, ACDC was notified of six employees of a movie production company who were diagnosed with acute hepatitis A in the previous 4 days. Of the six, two had only eaten on the set on October 3, 2005. Because these cases had a clearly defined common event, the likelihood of finding a source in this outbreak was increased. Public Health conducted a comprehensive

investigation of this outbreak including a case-control study, environmental health inspection, produce trace-back, and serological study of food workers. Prophylaxis was not offered because the 2-week window for post-exposure had passed. Contaminated baby-green lettuce was the most likely source of this outbreak but we could not determine when or where in the process from the farm field to the movie set the contamination occurred. The State Food and Drug Branch declined to investigate the Northern California farm where the lettuce was grown, partly because there was only one outbreak associated with the farm.

Olvera Street Restaurant: In early November, ACDC was notified that 3 office workers at a single workplace had acute hepatitis A. We investigated the possible sources of hepatitis A for these employees and found but there were multiple overlapping potential sources of exposure to hepatitis A including a restaurant on Olvera Street. We had already developed an in-depth questionnaire to re-interview cases of confirmed hepatitis A who had onset in October and, based on the experience of the officer workers, we added a question about eating on Olvera Street. During the initial re-interviews which occurred between November 11-15, we discovered 7 additional cases associated with the Olvera Street restaurant. All of the cases ate at this restaurant on September 14 or 15. (None of the cases had previously reported eating at this restaurant during the initial interviews by PH staff.) By the time we determined the connection of these cases to the restaurant, the two-week window period to offer prophylaxis had closed more than a month earlier. We determined that the time period was too long (60+ days) for secondary cases (from patrons to household contacts) to still occur.

On November 16, Environmental Health investigated the restaurant to assess any illness among food workers and to inspect food preparation practices and sources of produce. No food workers were identified with any illness during the November inspections, nor had they been ill on September 14 or 15 (this was confirmed with careful review of time cards and absentee lists); food preparation practices were found to be consistent with Hazard Analysis and Critical Control Point Program (HACCP) requirements. The produce vendors were different than the vendors which supplied food to the movie set.

Our policy is to make a public announcement to reach restaurant patrons if there is something which can be done for patrons according to the ACIP post-exposure prophylaxis protocol or if the announcement assists in the investigation. In this case, because the window period for prophylaxis was long over, and careful inspection of the restaurant revealed no ongoing source of hepatitis A, there was no benefit of public notification.

Café Pinot: On December 9, 2005, Public Health was notified about five food handlers at a downtown restaurant who had been diagnosed with hepatitis A in the previous week. We made the decision to notify the public at this time because we felt that the public might have been at risk for acquiring hepatitis A from the food handlers and we were still in the window period for prophylaxis for some patrons. We issued a press release on December 9 and set up a public health clinic over the weekend to provide IG to patrons who had attended the restaurant in the previous week and we offered IG to all the other food handlers at the restaurant. Over 50 doses of IG were given to food handlers and more than 650 doses to the public. At this time, we have not identified any cases of acute hepatitis A in patrons linked to eating at this restaurant and do not expect there to be any, given we are now 7 weeks after the exposure period.

Drug Treatment Center: On December 12, Public Health was notified of two cases of acute hepatitis A occurring in patients at a drug treatment center. Close investigation and questioning did not reveal a common source of exposure for the two cases (one case had been at the facility during the entire incubation period, one case had entered the facility just a few weeks before becoming ill). However, since each case helped to serve food at this facility, we provided IG to all the other residents there (more than 50 doses were provided). No other cases have been identified associated with this facility.

Conclusion

At this time, we have been unable to determine the source(s) of the increase in cases of hepatitis A in Los Angeles County, with the possible exception of one outbreak in which our investigation implicated pre-washed boxed lettuce. Colleagues at the CDC and around the country have also seen community-wide outbreaks of hepatitis A with no obvious source. It is possible that a contaminated food product was introduced into the county in August or September and that the subsequent increase in cases was due to person to person spread.

We sent samples of blood from patients with acute hepatitis A to CDC for analysis. While the majority of the cases are in the predominant genotype seen in the United States, the sequence type is new to the United States. Hepatitis A commonly occurs in 7-10 year cycles. The most recent peak was in 1999 when 1120 cases were reported that year and, until August 2005, we had been in a downturn with the lowest number of hepatitis A cases ever recorded in Los Angeles County. As of the end of January 2006, the number of suspect cases reported to Public Health each week has stabilized at around 30 cases (down from a high of 50 cases in November). Based on our experience, would half of these reports will be confirmed as acute cases.

We will continue to monitor the situation and work with our colleagues at CDHS, CDC, and in neighboring counties, along with community providers and organizations, to ensure the health of Los Angeles County residents.

If you have any questions or need additional information, please let either of us know.

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c: Chief Administrative Officer
County Counsel
Executive Officer, Board of Supervisors